STATE ENERGY PROGRAM NOTICE 99-1
EFFECTIVE DATE: December 28, 1998

SUBJECT: PROGRAM YEAR 1999 STATE ENERGY PROGRAM SPECIAL PROJECTS FINANCIAL ASSISTANCE GUIDANCE

PURPOSE: To establish guidance and management information for the State Energy Program Special Projects for program year 1999.

SCOPE: The provisions of this guidance apply to all States, Territories, and the District of Columbia (hereinafter "States"), applying for 1999 Special Projects financial assistance under the Department of Energy's (DOE) State Energy Program (SEP). Much of the information in this guidance is summarized from the rules applicable to SEP, 10 CFR part 420 and 10 CFR part 600.

BACKGROUND: In 1999, for the fourth year, DOE is offering States the opportunity to apply to undertake a variety of Special Projects under SEP. DOE has reviewed its end-use sector energy efficiency and renewable energy programs in which State assistance is an implementation strategy. As a result of this review, DOE is inviting States to submit proposals to implement specific DOE Office of Energy Efficiency and Renewable Energy (EERE) deployment activities and initiatives as Special Projects under SEP. States will compete for funding to implement activities relating to a number of programmatic areas such as Federal energy management, building codes and standards, alternative fuels, industrial efficiency, building efficiency, and solar and renewable energy technologies. Approximately $13,800,000 will be available for these projects.

LEGISLATION: SEP is authorized under PL 94-385, PL 94-619, PL 94-580, PL 101-440, and PL 102-486. The end-use sector programs participating in the SEP Special Projects are covered by their respective statutes. All financial assistance provided under SEP shall comply with applicable legislation.

REGULATIONS: SEP is governed by its program regulations (10 CFR part 420) published in the Federal Register on July 8, 1996, and amended in the Federal Register dated May 14, 1997, and the DOE Financial Assistance Rules (10 CFR part 600).

1.0 STATE ENERGY PROGRAM SPECIAL PROJECTS ACTIVITIES

1.1 SPECIAL PROJECTS GENERAL PROVISIONS: The Office of Energy Efficiency and Renewable Energy is funding Special Projects activities under SEP to accomplish several important goals:

-To directly involve States in activities to accelerate deployment of energy efficiency and renewable energy technologies;
- To facilitate the commercialization of emerging and underutilized energy efficiency and renewable energy technologies; and
- To increase the responsiveness of Federally funded technology development efforts to the needs of the marketplace.

1.2 SEP SPECIAL PROJECTS PROCESS: States are invited to develop and propose program activities that respond to the competitive categories outlined below. Successful proposals will be selected and funded as part of the State's SEP, although they will be awarded as separate grants. In all cases, the projects and budgets will be separately tracked so that the end-use sector offices can follow the progress of their projects.

Activities will be evaluated and ranked based on the criteria provided under section six below. States will be notified as to what activities were selected for funding. States are strongly encouraged to submit proposals in the categories that are best suited to their overall State energy plans. States can receive information from the respective end-use sector office(s) on specific projects not selected for funding by contacting their Regional Support Office.

(See sections 420.30, 420.31, and 420.32 for more about the process.)

2.0 SEP SPECIAL PROJECTS FUNDING

2.1 SPECIAL PROJECTS FUNDING: A notice of availability of the 1999 SEP Special Projects financial assistance will be published in the Federal Register on December 28, 1998. Approximately $13,800,000 will be available to States to implement activities described in section six below.

States are invited to compete for funds to implement projects under requirements provided in the instructions included in section six. In some instances, depending on the overall results of the technical review and available funding, proposals may be funded at lower levels than originally proposed. Such cases will be negotiated on case by case basis.

2.2 COST SHARE: The special projects being offered under this notice may have cost sharing requirements. Where applicable, these requirements are specified in the project descriptions and criteria in section six. Cost shares are stated as percentages (i.e., 20%; 50%, etc.), and represent

the part of the total cost of the project that must be provided by the grantee. Funds used to meet cost sharing requirements must comply with 10 CFR part 600.224 and may not, for example, include costs borne by another Federal grant (unless provided for by statute) or funds or contributions that have been used to meet cost sharing requirements of other Federal grants.

(See sections 420.31, 420.32, and 420.33, and 10 CFR part 600.224 for more information.)

3.0 APPLICATIONS FOR SEP SPECIAL PROJECTS

3.1 SPECIAL PROJECTS APPLICATION PROCEDURES: Application packages and instructions will be provided by DOE's Regional Support Offices. Information regarding specific instructions for the individual special project categories can be obtained by contacting the respective DOE representatives specified under section six of this Notice. In addition, States may post questions in a specific section of the Office of State and Community Programs website. The address for that Question and Answer Forum is as follows:

http://www.eren.doe.gov/buildings/state_and_community/sep/fy99/sepsp99-forum

Response postings will be updated daily.

Each Special Project proposal should include:

- A Standard Form 424, Application for Federal Assistance;
- An introductory cover page that includes:
    - The State's name;
    - The State's name for the project being applied for;
    - The DOE program being applied for (i.e. Rebuild America, etc.), including the particular category if an end-use sector is offering funding for several types of activities;
    - The name, address and phone number of the person in the State who will be responsible for programmatic oversight of the project;
    - A one or two paragraph abstract of the proposed project that succinctly summarizes what the State intends to do, what it hopes to achieve, and, where applicable, what partners it plans to use in the project;
- The goals and objectives of the project;
- A workplan describing the activities to be performed and implementation schedule;
- Personnel resources and subgrant requirements (if any); and
- The following application forms as required by DOE's Golden Field Office:
    - Federal Assistance Budget Information Form, DOE F 4600.4;
    - Budget Explanation Form, GO-PF20;
    - Pre-Award Information Sheet, GO-PF19;
    - US DOE Assurance of Compliance, DOE 1600.5;
    - Certifications Regarding Lobbying; Debarment; Suspension and Other Responsibility

Matters; and Drug-free Workplace Requirements; FA-Certs; and
- Disclosure of Lobbying Activities, SF-LLL.

Copies of the application forms can be downloaded from the Golden Field Office's web site at the following address: http://www.eren.doe.gov/golden/applicationdocs:html.

SPECIAL INSTRUCTIONS:

The introductory cover page is an extremely important part of the application, as it will be used in reviewing and evaluating the proposal, and in describing the projects in DOE press releases and Special Projects fact sheets and the Special Projects web-site.

Applicants are encouraged to keep their applications as concise as possible, **and the length of applications is limited to 10 pages** (or fewer, if specified under section six for a particular sector). Required forms and attachments such as letters of support would not be included in that limit, but applicants should assure that attachments are germane and as brief as possible.

Project periods should not exceed 24 months (or less, if specified under section six by the end use sector).

Proposals that request Federal funding above any limits on Federal funding specified for a particular project category will not be considered.

Where a State is proposing to serve as the lead State in collaboration with a number of other partner States, **the lead State must specify that it is willing and able to subgrant or otherwise provide funds as needed to its partner States**. Where a group of States wish to propose a collaboration but there is no State willing or able to meet the requirements of a lead State, each State must submit a separate grant application, with that State's funding needs requested, clearly drafted to spell out the collaborative nature of the project, and the partners involved. DOE would then evaluate and rank such groups of proposals as a single entity.

Copies of applications should not be glued or taped together, and all pages should be single side copies only.

(See section 420.33 for more detailed application requirements.)

3.2 APPLICATION DUE DATE: Applications for 1999 SEP Special Projects financial assistance must be submitted to the State's DOE Regional Support Office no later than **April 1, 1999**, in order to compete for this Special Projects funding. Please submit five copies of each application.

3.3 REQUESTS FOR EXTENSION: No requests for extensions for the submittal of SEP Special Projects applications will be granted.

3.4 EXPENDITURE PROHIBITIONS AND LIMITATIONS: Questions have been raised in the past about whether the expenditure prohibitions and limitations found in section 420.18 of the SEP regulations apply to SEP Special Project grants. DOE is currently preparing a rulemaking under SEP to clarify that such grants are governed by the prohibitions and limitations (if any) contained in the regulations and/or legislation governing the applicable end-use sector activity, from which the project funds are provided.

4.0 SEP SPECIAL PROJECTS SELECTION PROCESS

4.1 SPECIAL PROJECTS SELECTION DATE: 1999 SEP Special Projects selections are expected to be announced in May 1999. 1999 Special Projects grants are expected to be awarded in July 1999.

4.2 PROJECT RANKING: DOE Regional Support Office (RSO) staff will perform an initial review of all Special Project applications to ensure that the information required is provided. Applications determined to be complete and satisfactory will then be forwarded to DOE Headquarters, and technically evaluated by the respective end-use sector offices. DOE anticipates that evaluators will primarily be DOE employees, but where non-DOE evaluators are used, they shall be required to comply with all applicable DOE rules or directives concerning the use of outside evaluators. Evaluators shall be selected on the basis of their professional qualifications and expertise relating to the particular Special Project activity being evaluated.

5.0 INCLUSION IN STATE PLANS, AND REPORTING

5.1 INCLUSION IN STATE PLANS: Activities funded under the SEP Special Projects should be added to a State's overall SEP Plan after funding is awarded.

5.2 REPORTING: Reporting on Special Projects should provide quarterly progress and financial tracking for each SEP Special Project, as specified in the terms and conditions of award, and following the new consistent reporting format for SEP and SEP Special Projects initiated for fiscal year 1999.

States submitting quarterly reports for Special Projects should send the required number of copies to their Regional Support Office, and should also send one copy to the DOE Headquarters end-use sector liaison specified under part six of this notice for the particular project(s) the State is undertaking.

6.0 SPECIAL PROJECTS OPTIONS FOR 1999:

6.1 TRANSPORTATION TECHNOLOGIES: CLEAN CITIES/ALTERNATIVE FUELS/ADVANCED VEHICLE TECHNOLOGIES

Estimated Funds Available:	$2.7 million
Estimated Number of Projects:	See section below on Projects Requested
Cost Share:	At least 20% of cost must be from non-Federal funds; Federal funds will not exceed 80% of cost. See project descriptions under Projects Requested section below for any project funding ceilings.

Background

The goal of the U.S. Department of Energy's (DOE) Clean Cities program is to accelerate the development of a sustainable alternative fuels market through public/private Clean Cities partnerships formed around the country. The program will continue to provide funds to State Energy Offices for special projects in support of Clean Cities' alternative fuel vehicle (AFV) projects within each State, as an important element of strengthening the program relationship between the Federal, State and local government partners and private sector Clean Cities stakeholders.

In particular, the primary objective for the Clean Cities program is to ensure that local Clean Cities coalitions are vibrant, active coalitions enabling fleet customers to increase their utilization of AFVs. The *Clean Cities Game Plan 1998/99*, especially the "Advancing The Alternative Fuel Vehicle Choice" component, outlines DOE's commitment to building local markets for alternative transportation fuels. The *Clean Cities Game Plan 1998/99* is available from your Regional Support Office, your local coalition, or the Clean Cities Hotline at (800) CCITIES.

In the 1999 State Energy Program (SEP), the DOE Clean Cities program is interested in funding projects in several new areas. DOE Clean Cities program is seeking proposals that will: build 100 percent niche market penetration for alternative fuel vehicles; provide alternative fuel school buses; allow for the use of advanced electric battery applications for transit buses; promote energy efficiency in heavy duty vehicles; and, promote the use of advanced transportation technologies. As in past years, DOE Clean Cities will continue to entertain proposals for funding Clean Cities coordinators and infrastructure development.

Procedural Guidelines

- States must be in compliance with the Energy Policy Act alternative fuel vehicle acquisition rule in order to be eligible for Clean Cities funding.

- States are requested to submit alternative transportation fuel projects in partnership with their local, officially-designated Clean Cities coalition or those local governments petitioning for Clean Cities status.

- Only those projects located in designated Clean Cities or are in petitioning Clean Cities are eligible for funding.

- Petitioning Clean Cities must have applications on file at DOE Headquarters as of **December 31, 1998,** to be eligible to apply for funding.

- A letter of support from each participating Clean Cities coalition explaining the importance of the proposed project to the coalition's objectives must be attached to the proposal to be considered for funding.

- If the proposer is interested in requesting funding from more than one of the seven subject areas described below, a **separate** proposal for each subject area must be submitted for evaluation. This is necessary in order to speed the evaluation and avoid partial awards that require revision and re-submittal of Federal forms.

- Please also pay strict attention to the funding available in each category. Do not submit a proposal for an amount above the project range as it will be dismissed as non-responsive.

Projects Requested in 1999

In program year 1999, the Clean Cities program is interested in funding initiatives in the subject areas listed below.

1) Projects that develop Clean Cities organizations, such as funding full-time coordinator positions or senior executive/intern programs. Eligible organization activities and projects include, but are not limited to: workshops for stakeholders and fleet operators; public education and outreach; development of legislative strategies; development of plans for specific capital investments; and training programs on the maintenance of AFVs. The Clean Cities program is interested in funding at least eight (8) projects not to exceed $20,000 per project in this category.

2) Projects that promote the development of refueling infrastructure for vehicles operating on alternative fuels. Projects that will help to reduce greenhouse gas emissions, such as infrastructure for renewable fuels, will be of particular interest. The Clean Cities program is interested in funding at least three (3) projects not to exceed $250,000 per project in this category.

3) Projects that deploy alternative fuels school bus technologies. In support of DOE's Energy $mart Schools initiative, the Clean Cities program, in conjunction with the Office of Heavy

Vehicle Technologies, is interested in funding at least four (4) projects not to exceed $50,000 per project in this category. The focus of these projects must be deployment rather than technology development; therefore, no projects involving the use of prototype technology will be funded. Alternative fuel school buses deployed as a part of this project must use emissions certified engines from original equipment manufacturers (OEMs). Preference will be given to projects using technology that has been proven reliable in applications similar to the proposed project. **A plan for collecting and reporting reliability and performance data must be included in the proposal**. The reliability and performance data must include monthly mileage accumulation, monthly average fuel economy, fuel cost, component failures, and operational challenges and their solutions.

4) Projects that implement electric vehicle advanced battery technologies in existing electric transit buses. The Clean Cities program, in conjunction with the Office of Advanced Automotive Technologies, is interested in funding at least two (2) projects not to exceed $50,000 per project in this category. **A plan for data collection must be included in the proposal.**

5) Projects that promote the acquisition of AFVs in fleets that enable 100 percent penetration in a given niche market will be of particular interest. Eligible "niche" market fleets include: shuttle applications, taxi fleets, law enforcement fleets, delivery fleets, health care services, welfare to work, and other types of fleets. Funding is available for the incremental cost of AFVs, for example, through rebate programs, with specific emphasis on dedicated AFVs or AFVs that will maximize alternative fuel usage. Eligibility is restricted to private and local government fleets. Proposals must include a description of the potential for the niche market to reach 100 percent AFV use, and a strategic plan for reaching that potential in a 1-5 year time frame. In this category, the Clean Cities program is interested in funding at least ten (10) projects not to exceed $100,000 per project.

6) Projects that promote the introduction of energy efficient technologies and energy saving approaches in heavy duty vehicles. Projects that promote technologies to provide cab heating and cooling, thereby reducing the need for idling of heavy trucks are of special interest. **A plan for collecting and reporting reliability and performance data must be included in the proposal.** In partnership with the Office of Heavy Vehicle Technologies, the program is interested in funding at least two (2) projects not to exceed $50,000 per project.

7) Projects that promote the use of advanced transportation technologies, such as hybrid or fuel cell vehicles, that can provide reductions in oil use and reductions in environmental emissions. Technologies that have the potential to reduce greenhouse gas emissions are of particular interest. Technologies that integrate advanced propulsion system and vehicle concepts with alternative fuels (e.g., ethanol fuel cells, natural gas hybrids) are of particular interest. Projects that have a substantial R&D element will be considered, but extra consideration will be given to proposals that include a strategic deployment plan for the subject technology. In this category, the Clean Cities program will partner with the technology development offices within the Office of Transportation Technologies to fund at least (5) projects, not to exceed $100,000 per project.

Evaluation Criteria

Clean Cities Organizational Development proposals (#1 in previous section) will be evaluated by Evaluation Criteria numbers three through seven below. Other proposals will be evaluated and ranked according to each of the following criteria:

1) Energy-related benefits as indicated by the number of alternative fuel refueling stations introduced as a result of this project and/or by projected number of AFVs introduced and their estimated alternative fuel consumption. (25 points)

2) Environmental benefits including reductions in criteria pollutants and greenhouse gases, as a result of the project. (20 points)

3) Ability to strengthen and stimulate the Clean Cities coalition(s) toward meeting their alternative fuel vehicle goals. (15 points)

4) Probability of program achievement as indicated by the participation in the Clean Cities program, past performance including grant implementation, and/or the number of partners. (15 points)

5) Visibility of the project--will it enhance awareness and acceptance of AFVs in the community? (10 points)

6) Greater than a 20 percent cost share participation, using non-Federal sources. (10 points)

7) More than one Clean Cities coalition working on the project. (5 points)

Program Policy Factors:

The DOE Clean Cities program will apply program policy factors. The following program policy factors will not be point scored but will be assessed, and those include: geographic location of applicant, diversity of alternative fuels, and demonstrated need for Federal funding.

Program Contacts:

Headquarters: Dorothy Wormley (202) 586-7028

Regional Support Offices:

Atlanta	Yolanda Jones	(404) 347-2380
Boston	Michael Scarpino	(617) 565-9716
Chicago	Melinda Latimer	(312) 886-8582
Denver	Ernie Oakes	(303) 275-4817

	Dan Deaton	(972) 491-7276
Philadelphia	James Ferguson	(215) 656-6977
	Patricia Passarella	(215) 656-6966
Seattle	Roxanne Dempsey	(206) 553-2155
	Ernest Rios	(510) 637-1950

6.2 INDUSTRIAL TECHNOLOGIES

INDUSTRIAL TECHNOLOGIES

Estimated Funds Available:	$ 2.8 million
Estimated Number of Projects: funds	~20 projects ranging from $50,000 to $200,000 in Federal
Cost Share:	Cost share of 20% and up from non-Federal funds is encouraged

Background

The mission of the Office of Industrial Technologies (OIT) is to improve energy efficiency, environmental performance, and productivity of materials and process industries by developing and delivering advanced science and technology options that will: 1) lower raw material and depletable energy use per unit output; 2) improve labor and capital productivity; and 3) reduce the generation of wastes and pollutants. OIT accomplishes its mission through its *Industries of the Future* strategy, which focuses on nine energy-intensive and waste-intensive industries: Agriculture, Aluminum, Chemicals, Forest Products, Glass, Metal Casting, Mining, Petroleum Refining, and Steel.

OIT delivers its products and services to industry in an integrated way. This makes all OIT assistance -- technical, financial, information, policy evaluation and support, and market analysis -- available to meet customers needs. This is accomplished through an industry focused portfolio of programs to achieve near, mid and long term goals laid out in *Industries of the Future* visions and roadmaps.

Projects Requested in FY 1999

This FY 1999 solicitation seeks projects that specifically target State implementation of *Industries of the Future*. The goals are to:

- increase the awareness of processes, products and services of OIT, and other public/private organizations, which could accelerate implementation of *Industries of the Future* at the State level;
- implement delivery of all OIT products and services in a coordinated and useful

manner; and

- increase the involvement of more companies in taking advantage of investments and implementation of *Industries of the Future* visions and roadmaps.

In order to successfully deliver an integrated set of industrial products and services to State industry, proposals should include, but are not limited to, **one or more** of the following deliverables and activities:

1) Develop a concise **action plan** which outlines how State industrial activities can utilize the *Industries of the Future* strategy, or similar government/industry partnership approach, at the State level. The plan may include elements such as:

- a State profile of its industry -- especially how it corresponds to OIT's *Industries of the Future*. A profile may also include key industry descriptive data, major companies and/or plants within the State, and potential State, industry, university and other public/private organization partners.
- how OIT *Industries of the Future* products and services **(see list below),** and other public and private resources fit into overall State plans and how these products and services would be delivered to *at least one,* or more, of the nine target industries.
- a description of activities, the timing, resources required, and an overall time frame for implementation of the plan.
- identification of appropriate industry/public/private alliances that will be formed and how such alliances could be promoted.
- linkages to the national *Industries of the Future* visions and roadmaps
- measures of success.

2) Develop and deliver **workshops** that would promote the formation of appropriate alliances; deliver information and/or technical and financial assistance on OIT products and services; and target appropriate *Industries of the Future* audiences.

3) Develop and deliver **training** to interested State participants and target industries on topics such as: the *Industries of the Future* process; lessons learned and techniques for responding to OIT and other Federal solicitations; and utilizing OIT products and services.

4) Develop and conduct **showcases** that promote advanced industrial energy and environmental process technologies in one or more of the target industries.

5) Develop and deliver other **information and deployment activities** which facilitate implementation of *Industries of the Future* at the State level.

Award for any State project will not exceed $200,000. Cost sharing by State governments, regional organizations, industries, industry associations and/or others, either by provision of funds or in-kind contributions, is strongly encouraged. This is required for continuation projects that have had sufficient time to develop State-based industry alliances.

Office of Industrial Technologies - *Industries of the Future* Products and Services

Research, Development and Demonstration for:

- Agriculture - using crops, trees, and agricultural wastes to make chemical feedstocks/consumer goods, like plastics, paints, etc., through either current crops in today's processing systems or modified plants in new processing systems.
- Aluminum - primary and secondary aluminum production, recycling, and advanced manufacturing processes needed to improve the energy efficiency , environmental profile and competitiveness of the U.S. aluminum industry.
- Chemicals - chemical synthesis, bioprocesses and biotechnology, materials technology, process science and engineering technology, chemical measurement, computational techniques, supply chain management, information systems, and manufacturing and operations.
- Forest products - forestry, wood, and pulp and paper products: sustainable forestry, environmental performance, energy performance, capital effectiveness, recycling, and sensors and control.
- Glass - glass production within the flat glass, container glass, pressed and blown glass, and the fibrous glass industry segments. The focus of the research is in the areas of production efficiency, energy efficiency, environmental protection and recycling, and innovative uses.
- Metalcasting - technologies in market development (i.e. lost foam, semi-solid), materials (i.e. clean cast, thin-wall cast), manufacturing (i.e. sensors and simulations), and environmental (i.e. sand reclamation, alternative processes).
- Mining - metal and nonmetallic mineral mining (excluding oil and gas) needed to improve resource exploration, extraction, and processing
- Petroleum – energy efficiency, environment, safety and reliability in refining
- Steel - process efficiency, environmental engineering, and iron unit recycling.
- Enabling Technologies -- combustion, sensors and controls, and advanced materials with targeted benefits across multiple industries.
- Distributed Generation - advanced turbine systems for industrial heat and power.

Financial assistance – delivery of financial assistance to help independent inventors, small business and States develop, deploy and demonstrate energy saving and environmental technologies, implemented through the Inventions and Innovation and NICE^3 programs. Promote private sector investment and seed investment in energy efficient and environmental performance technologies.

Technical assistance – the delivery of information and tools to help plant managers make informed decisions in technology choices today that result in energy, waste and dollar savings, implemented through the Industrial Assessment Centers and the challenge programs which focus on electric motors and drive systems, compressed air, steam and combined heat and power.

Evaluation Criteria

1. Understanding of industry needs and clear statement of project goals and objectives. (20 points)
2. Viability of approach for achieving desired outcomes in the State. (20 points)
3. Extent of industry involvement in the project. (15 points)
4. Demonstrated match of project focus with one or more national *Industries of the Future.* (15 points)
5. Qualifications and ability of project team, including State, industry, subcontractor (if any) personnel to complete the work successfully. (10 points)
6. Clearly stated project deliverables and measures of success identified and tied to the solicitation goals on page 6.2-(1). (10 points)
7. Cost-sharing and resource-sharing of State/ industries/other organizations. (10 points)

Program Contacts

Headquarters: James Quinn (202) 586-5725

Regional Support Offices:

Atlanta	Timothy A. Eastling	(404) 347-7141
Boston	Lili Griffin	(617) 565-9734
Chicago	Julie Nochumson	(312) 886-8579
Denver	Gibson Asuquo	(303) 275-4841
Philadelphia	Maryanne Daniel	(215) 656-6964
Seattle	Julia Oliver	(510) 637-1952

6.3 BUILDING TECHNOLOGIES

6.31 CODES AND STANDARDS

Estimated Funds Available: $4,200,000

Estimated Number of Projects: 10-20 not to exceed $400,000 in Federal funds per project

Cost Share: At least 25% of cost must be from non-Federal funds; Federal funds will not exceed 75% of cost.

Background

Section 304 of the Energy Conservation and Production Act, as amended, requires States to update their commercial building energy codes to meet or exceed the American Society of

Heating, Refrigerating and Air Conditioning Engineers and the Illuminating Engineering Society of North America (ASHRAE/IESNA) Standard 90.1-1989, or its successor(s) that DOE has determined would improve energy efficiency in commercial buildings. States are also required to consider whether to meet or exceed the 1992 Model Energy Code (MEC) or its successor(s) that DOE has determined would improve energy efficiency in residential buildings. On December 6, 1996, DOE published its determination regarding the 1995 Model Energy Code in the Federal Register. The Department is currently preparing a determination regarding the 1998 International Energy Conservation Code (formerly the Model Energy Code). DOE is required to provide technical assistance and incentive funding to States to respond to this legislative requirement.

Projects Requested in 1999

The Office of Building Technology, State and Community Programs is providing incentive funding to support State actions to update, implement, enforce and evaluate the effectiveness of their residential and commercial building energy codes. These actions will enhance the energy efficiency of residential and commercial building stock in the United States and provide environmental benefits. Actions implemented under this program address Item 10 of the Climate Change Action Plan, which is designed to reduce greenhouse gas emissions.

This solicitation consists of a multi-tiered approach to help States adopt, implement and enforce their building energy codes, as well as evaluate the success of existing energy code grant programs. First, it targets "developmental" State programs. Developmental programs are energy code programs where little or no action has been taken to adopt or implement an energy code. This might include State programs that are seeking financial assistance to specifically supplement or hire staff to begin action on their program. Second, it targets "progressive" State programs. Progressive programs are energy code programs that have begun or are completed but need additional support to expand, enhance or evaluate the program.

States that have already adopted energy codes that meet or exceed the 1995 Model Energy Code and Standard 90.1-1989 are encouraged to evaluate the effectiveness of their programs, refine them, and work toward the adoption of the next generation building energy codes (such as Standard 90.1R, the Multi-State Commercial Code, or future editions of the International Energy Conservation Code (formerly the Model Energy Code), that achieve even higher levels of cost-effective efficiency. Also, States that have completed code implementation projects funded with prior year DOE energy code grants are encouraged to submit proposals to evaluate the effectiveness of their building energy code program.

Teaming and joint applications are encouraged between States and between States and their stakeholders. States that already have adopted and implemented Standard 90.1-1989 and/or the 1995 MEC are encouraged to partner with other States or other stakeholders for the purpose of developing and delivering joint or coordinated training or implementing more stringent energy codes. States may team with States inside or outside their regions. Teaming is considered in the evaluation criteria below. Prior year grants in themselves provide no barrier to awards in FY 1999; however, performance on prior year grants is considered in the evaluation criteria.

Proposals

Each proposal should include a detailed description, a timeline and a budget, itemized by task. Proposals should be formatted to make the following required items easy to locate and the evaluation criteria, related to those requirements, easy to apply.

The proposal should not exceed 10 pages in length, excluding the required forms.

Proposals must include:

1. Workplan and Milestones. Describe how the proposed project will be developed and implemented. Identify goals using measurable results and provide a schedule for completion. Identify facilities, equipment, personnel and other resources necessary for this project. Explain the relationship (if any) to any prior year grant received.

2. Technical Narrative. Address how the lead or coordinating agency intends to update their State and local building codes, or if codes have already been adopted, how it intends to improve code compliance, through training, technical assistance, etc. Include the adoption process for energy codes at both the legislative and administrative level as well as by the local building community. Fully describe the methodology for implementation of new energy codes including training and information transfer elements. Identify building community partners and their role in the process. Include government, local code officials, builders, architects, and energy technology suppliers, and utilities and environmental or other public interest allies, if appropriate.

3. Qualifications and Accomplishments. Identify and describe lead agency, key personnel and other partners, including their qualifications, experience and expertise as it relates to successfully carrying out this project. If previous DOE grants to update, implement, or enforce the State's codes have been received, describe the progress and accomplishments to date in meeting the goals established for the previous grant(s).

4. Innovative, Technology Transfer, and Advanced Code Elements. Describe any unique or innovative components of this project. Describe any components of the program that will expedite the adoption and implementation of improved energy codes in other States or regions or the transfer of information or techniques to other States or regions. Describe any components of the program that will hasten the adoption of codes which exceed the requirements of ASHRAE 90.1-1989 or the 1995 MEC. Extra points will be earned by proposals that demonstrate such attributes.

Special Conditions:

The grantee is required through the period of performance of this project to provide an annual presentation of its objectives and accomplishments of the project at the "Annual DOE National Conference on State Building Energy Codes." The FY 1999 Conference will be held in Tacoma, WA, July 13-14, 1999. Future dates and locations, in the continental U.S., will be announced and

may vary from year to year. Include travel costs to the National Conference in the proposal.

Evaluation Criteria

State proposals will be ranked according to the following criteria:
1. Ability of the project team to complete work successfully, including qualifications of key agency(ies) and personnel. (35 points)
2. Ability of the project to significantly contribute to the adoption, implementation, enforcement, or evaluation of building energy codes which exceed Standard 90.1-1989 and the 1995 MEC, in a cost effective manner. (30 points)
3. Ability of the project to identify and secure non-Federal resources (such as funding from utilities or the energy efficiency industry) to develop the project and to ensure its continuation after the termination of Federal funding. (20 points)
4. Ability of project to introduce innovation, transfer information/techniques to other States or regions resulting in wider adoption, implementation and enforcement of building energy codes, or introduce more advanced energy codes. (15 points)

For additional information contact your Regional Support Office representative (see below) and for technical information contact Margo Appel at 202-586-9495.

Atlanta Region	Traci Goins	(404) 347-0236
Boston Region	Sam Thomas	(617) 565-9732
Chicago Region	Michael Peterson	(312) 886-8577
Denver Region	Steve Palomo	(303) 275-4838
Philadelphia Region	Darren Stevenson	(215) 656-6970
Seattle Region	Carole Gates	(206) 553-1165

6.32 REBUILD AMERICA

Estimated Funds Available:	Up to $1,250,000.
Estimated Number of Projects:	The number of proposals awarded will depend on the quality of the proposals received. Awards of Federal funds will range from approximately $50,000 to $150,000 (maximum) each.
Cost Share:	At least 50% of cost must be from non-Federal funds, with credit given for cost sharing above that amount. Federal funds will not exceed 50% of cost.

A. Background

Rebuild America helps community partnerships increase the energy efficiency of commercial and multifamily buildings, schools, public facilities, and public housing. Partnerships can be led by any public or private sector organization (but must include at least one State or local government agency) and could include economic development organizations, energy service companies, financial institutions, utilities, private businesses, nonprofit organizations and others interested in economic growth, community development, and environmental responsibility. DOE is an active partner in each partnership. There are currently about 200 Rebuild partnerships in over 40 States. Some of these partnerships have received direct seed funding from DOE in the past. However, it is now DOE's intent to support Rebuild partnerships through State energy offices and SEP Special Project funding described in this section.

Partnerships joining the program agree to develop an Action Plan within one year. DOE helps partnerships develop their action plan and carry out energy efficient building retrofits. DOE encourages the integration of energy with other local priorities during the planning process. Examples of topics that could bring a community together include neighborhood revitalization, main street economic growth activities, sustainability, rebuilding school infrastructure, communities of the future, downtowns for tomorrow, etc. The Action Plan should be tailored to meet unique priorities of the local community.

DOE helps partnerships by providing assistance that fills key needs on a short-term basis to help organization, planning, or implementation activities to leap hurdles or proceed more quickly. The Rebuild America program provides a range of planning, marketing, technical, and financial assistance products and services that will help organizations form partnerships, and develop and implement State-wide or community-wide Action Plans. Rebuild America services may be delivered to a single partnership on site, or via phone, or may be provided in a workshop or training format to a group of partnerships. These services are provided to partnerships through Regional Teams led by staff from the DOE Regional Support Offices. (Regional Teams are supported by the National Rebuild America Program Team). Individuals responsible for serving as the primary contact for Rebuild America partnerships as members of the Regional Teams are called ***Program Representatives***. These Program Representatives are critical to accomplishing building retrofits. DOE believes that States are best suited to serve as Program Representatives for partnerships within their borders. Therefore, States applying for funding under this solicitation should assign a person or persons as Rebuild America Program Representative.

B. Projects Requested in FY 1999

The goal of the 1999 Rebuild America Special Projects solicitation is to create new Rebuild America Partnerships and expand the existing partnerships with States. Through this effort DOE is interested in providing continuing value-added support to existing community partnerships and recruiting qualified new partnerships. To achieve this goal, DOE is seeking proposals from States which: 1) Establish/Continue a State role as Program Representative for Rebuild America;

and 2) Support partnership proposals that strengthen the program. These two objectives are described in sections #1 and #2 below.

1) Establish/Continue a State Role as Program Representative for Rebuild America

DOE's intent is to have designated individuals in each State working with the Rebuild America Regional Teams as Program Representatives to: a) provide services to existing partnerships within their State and help expand existing partnerships and b) raise the awareness of the program and recruit additional qualified partnerships into the program. Program Representatives currently include staff from DOE Regional Support Offices, States, and DOE contractors.

These Special Projects provide support to allow States currently serving as Program Representatives to continue in that capacity and seeks to add additional State Program Representatives in States not currently serving in that capacity. As members of the Rebuild America Regional Teams, State Program Representatives will be responsible for:

Marketing
- Informing State organizations and communities about the benefits being realized by current partnerships with the Rebuild America program, the requirements of the program, and the assistance available to help achieve desired results in your State.
- Direct marketing to State and community leaders, focusing on finding local champions for State-wide and community-wide efforts.
- Providing the content for at least one case study per year for the most successful partnership in the State.

Planning Assistance
- Assisting new partnerships in partnership organization and development.
- Assisting or obtaining assistance for planning and development of Action Plans.

Implementation
- Assuring that technical assistance products and services are available to partnerships to aid them in carrying out their *completed* Action Plans.
- Helping partnerships to expand by including more organizations and participants in evolving and working partnerships.
- Assisting pre-existing partnerships in the State with obtaining assistance and achieving progress.
- Identifying State Energy Office programs which could provide additional resources for the Rebuild America program. For example, many States have energy audit, financing, and special topic programs available.
- Identifying successful products developed for State programs that could be used nationally by Rebuild America partners.
- Fostering and supporting peer-to-peer exchanges amongst Rebuild America partnerships in their States.

Communication

- Maintaining regular communications with partnerships and other participating organizations within the State.
- Maintaining regular communications with the Rebuild America Regional and National Teams by telephone, on-site visits, and/or electronic media.
- Attending Rebuild America meetings, workshops, and conferences.

Offices receiving grants shall designate a lead person to be the Program Representative. In addition to assisting partnerships, this person shall participate in all team activities, e.g. monthly conference calls, team meetings, workshops, annual forums, etc. Awards may be used to pay for staffing, travel, and other related expenses for personnel within the State Energy Office who are responsible for Rebuild America activities.

2) Support Partnership Proposals to Strengthen the Rebuild America Program

Where a State has (or proposes to establish) a Program Representative, funds may be used in various innovative ways to enhance or expand community partnerships. This could include States that are currently serving as Rebuild America Program Representatives but are not requesting funds for that purpose through this solicitation. DOE funds shall not be used for capital improvements including energy retrofits. (Note: Program Representative duties and responsibilities must be consistent with those listed in this solicitation)

As an example, partnership proposals could cover such activities as:

- Staff support
- Anything that builds capacity within partnership to sustain activities
- Any activity which increases availability of local project financing
- Any activity which provides benefits for multiple partnerships in State or region
- Anything that encourages flow through of funds to local partnerships

Proposals must be:

- Designed to address needs and or opportunities of a community partnership(s),
- Consistent with the focus and intent of Rebuild America,
- Highly leveraged with State, local or other resources, and
- Targeted at partnerships that have begun implementation of their Action Plans.

While proposals may address any substantive aspect of enhancing or expanding a partnership and address any aspect of community energy usage within the scope of Rebuild America, DOE is particularly interested in proposals which seek to comprehensively address the needs of K-12 schools, a priority sector within Rebuild. In support of its new Energy $mart Schools initiative, DOE is interested in proposals which seek to transform entire school districts in a manner that would serve as a model for the State/Nation. The Rebuild America partnership should focus on overcoming policy, technical, and financial barriers to energy efficiency and renewable energy

application in targeted school district(s). Specifically DOE is seeking proposals to expand partnerships targeting K-12 that encompass:

- building retrofits and new construction
- transportation
- education programs
- procurement practices
- linkages between school facilities and activities within the surrounding community

C. Funding Guidance

- Successful proposals from States may receive up to **$50,000** for activities described in B.2. above.

- No more than one proposal per State will be awarded under part B.2 of the Rebuild America special project.

- DOE has allocated approximately $200,000 for school proposals under part B.2.

- DOE reserves the right to fund partial proposals from States submitting proposals requesting DOE funding for activities described in **both B.1 and B.2** above.

D. Proposal Preparation

Proposals should include the following sections:

1. APPROACH: Describe the approach that will be used to address the project responsibilities outlined above. Cover each appropriate bullet item in Section B1 or B2, depending on the type of project proposed, and identify how each will be addressed. An item by item description is preferred.

2. STAFF RESOURCES - Identify a lead person in the State Energy Office who will have the Program Representative responsibilities listed in this solicitation. Describe education (brief), experience, skills, and accomplishments which clearly demonstrate his or her ability to carry out these responsibilities. Include the amount of time this lead person would have available to devote to program. Describe knowledge and experience with marketing, building retrofits, and energy project financing. Identify other personnel, and their skills and expertise, that will be made available to back-up and support the lead person as well as the Rebuild America partnerships within the State.

3. POTENTIAL IMPACT - Provide an estimate of the number of partnerships you hope to form or expand over the next two years. Provide a rough estimate of the potential energy, economic, and environmental benefits of these partnerships. Describe additional benefits expected. Provide a list of current Rebuild America partnerships in the State, and describe

any ongoing assistance efforts and/or existing relationships with current Rebuild America communities.

4. STATE GOALS/PRIORITIES: Describe how the goals and priorities of the State will be served by participation in the Rebuild America program. Describe how the goals and priorities of State-wide organizations and communities will be served by participation in this program.

5. STATE WIDE PROGRAMS - Describe programs/resources of the State or others within the State that can be made available or tailored to Rebuild America partnerships. These should include local/community resources.

6. BUDGET - Provide a breakdown of budget request. Clearly show what the funds will be used for and how much, if any, will be go directly to partnerships. If funds are to be passed through to local partnerships for non-construction capital improvement, the proposal should identify how these funds will substantially leverage other local resources.

7. PAST ACCOMPLISHMENTS - Please provide a section on accomplishments and results initiated within the State related to the goals and objectives of the Rebuild America activity.

Additional Information

Please include phone, fax, and e-mail of both the office director, and of the proposed lead person for this special project.

The proposal should not exceed 10 pages in length, excluding the required forms.

All States and territories are eligible.

Period of Performance: Up to 2 years

E. Evaluation Criteria

State proposals will be evaluated and ranked according to the following criteria:

1. APPROACH (30 points): How viable is your approach for achieving the desired outcomes? What understanding is demonstrated of the needs and expected benefits of State-wide organizations and individual communities? Does the approach demonstrate experience with barriers in the State and potential solutions to those barriers? Does the approach build on established networks of organizations at the State and local level?

2. STAFF RESOURCES (25 points): DOE considers communications/people skills to be

the most important ingredient of successful Program Representatives. Does the proposal clearly identify a lead person to be the Rebuild America Program Representative with the knowledge, skills, and ability to meet the responsibilities listed above? Does the State Energy Office have other staff with similar abilities to provide backup and assistance?

3. POTENTIAL IMPACT (15 points) - Expected number of new and/or expanded partnerships. Estimates of potential and quantifiable estimates of energy, economic and environmental benefits. Identification of significant other benefits. Commitments from prospective partners.

4. GOALS AND PRIORITIES (10 points): How well does Rebuild America fit within goals/priorities of the State? How will Rebuild America serve the needs of its organizations and communities?

5. STATE WIDE PROGRAMS (10 points): What results in the last 5 years in the development of community partnerships involving energy efficiency and renewable energy can be attributed to actions taken by the State Energy Office? Does the State Energy Office or others have program resources that can be made available or tailored to Rebuild America partnerships? What types of financing programs are available? What types of technical assistance services are available?

6. COST SHARE (10 Points) - Cash or in kind contribution to the project above the minimum requirement of 50%.

F. Program Contacts

Headquarters:

Mark Bailey (202) 586-9424

Regional Support Offices:

Atlanta	Steve Hortin	(404) 347-0239
Boston	Greg Davoren	(617) 565-9706
Chicago	Juli Pollitt	(312) 886-8571
Denver	Dave Waltzman	(303) 275-4821
Philadelphia	Susan Guard	(215) 656-6974
Seattle	Paul Johnson	(206) 553-2154
	Eileen Yoshinaka	(808) 541-25641.

6.33 HOME ENERGY RATINGS SYSTEMS (HERS)

Estimated Funds Available:	$250,000
Estimated Number of Projects:	5 -10 at $25,000 to $50,000 in Federal funds per project
Cost Share:	At least 20% of cost must be from non-Federal funds; Federal funds will not exceed 80% of cost.

Background

In 1994 the Department began working with pilot States including Alaska, Arkansas, California, Colorado, Vermont, Virginia, and most recently Mississippi, to encourage the adoption of Home Energy Ratings Systems (HERS) as a means to improve the energy efficiency of homes and to access financing to do so. The 1999 budget appropriation directed that funds be made available to other States to encourage these actions. HERS can include the energy analysis of new and/or existing homes, recommendations to improve the efficiency of the home, and assistance in implementing improvements such as identifying financing as necessary.

Project

The Office of Building Technology, State and Community Programs is providing incentive funding to support State actions to overcome barriers to improving the energy efficiency of residences through the use of HERS and related activities. States are encouraged to submit proposals.

Projects may include but are not limited to:

- Training on home energy ratings, energy efficiency improvements in homes, and applicable financing for the financial community, realtors, appraisers, home buyers, builders and others.

- Educational activities and materials development and dissemination to increase awareness of home energy ratings, associated efficiency improvements and financing options.

- Partnerships with financial and housing organizations to increase the use of rating information to achieve energy efficiency improvements.

Proposals should include:

1. A description of the barriers the State faces in increasing residential energy efficiency and how the proposed HERS activities overcome those barriers.

2. A work plan and milestones. Describe how the proposed project will be developed and implemented. Identify goals using measurable results and provide a schedule for completion.

3. The qualifications and accomplishments of the project team. Identify and describe the key personnel and other partners, including their qualifications, experience and expertise as it relates to successfully carrying out this project.

Proposals should not exceed 10 pages in length, excluding the required forms.

Special Condition:
The pilot States of Alaska, Arkansas, California, Colorado, Mississippi, Vermont, and Virginia may not apply for these funds.

Evaluation Criteria

State proposals will be ranked according to the following criteria:

1. APPROACH: How viable is the overall approach for achieving the desired outcomes? Does the approach demonstrate experience with barriers in the State and potential solutions to those barriers? What understanding is demonstrated of the expected benefits of HERS? Does the approach build on established networks of organizations at the State and local level? (35 points)

2. QUALIFICATIONS: Ability of the project team to complete work successfully, including qualifications of key agency or agencies and personnel. (35 points)

3. IMPLEMENTATION: Are the specific tasks achievable? Are there measurable outcomes with a realistic schedule for implementation? (15 points)

4. PROGRAM COST SHARE: Greater than a 20 percent cost share. (10 points)

5. POTENTIAL IMPACT: Anticipated benefits from these activities. Estimates of energy and dollars saved. Identification of significant other benefits. Commitments from prospective partners. (10 points)

Program Contacts

Headquarters: Faith Lambert (202) 586-2319

Regional Support Offices:

Atlanta:	Traci Goins:	(404) 347-0236
Boston:	Sam Thomas:	(617) 565-9732
Chicago:	Michael Peterson:	(312) 886-8577

Denver:	Steve Palomo:	(303) 275-4838
Philadelphia:	Darren Stevenson:	(215) 656-6970
Seattle:	Richard Putnam:	(206) 553-2165

6.4 THE FEDERAL ENERGY MANAGEMENT PROGRAM (FEMP)

Estimated Funds Available: $950,000

Estimated Number of Projects: 1 Grant for an Alternative Financing Pilot Project at $225,000
6 Grants for Assistance to federal sites at $75,000 each
3 Grants for training of State staff in alternative financing techniques applicable to federal sites at $25,000 each
1-3 grants for Resource Efficiency Manager Development (depending on leveraging) at $65,000 to $200,000 (depending on number funded)

Cost Share: Cost sharing from non-Federal funds is desired and will improve a proposal's competitiveness.

Regional or multi-State proposals are not encouraged as multi-party single grant applications; however States may submit individual proposals that are coordinated and cross-referenced. The advantages of such coordinated efforts must be made explicit. Such proposals should be able to stand alone in the evaluation process.

FEMP Background

The mission of the Federal Energy Management Program (FEMP) is to reduce the use and cost of energy in the federal sector by advancing energy efficiency, water conservation and the use of solar and other renewable energy sources. FEMP accomplishes its mission by leveraging both federal and private sector resources to provide technical and financial assistance to federal agencies.

FEMP's basic business strategy is one of leadership and strategic collaboration. FEMP develops the vision and strategic plan, builds linkages to other programs sponsored by DOE, and strengthens partnerships with other parts of the federal government, with the States, and with private sector organizations such as utilities, the growing network of energy service companies (ESCOs), and manufacturers.

FEMP maintains a fuel-neutral perspective in implementing its business strategy and encourages investment and purchasing decisions based on life-cycle cost. And, FEMP is transitioning to a new way of doing business--streamlining procurement processes, strengthening regional operations, providing incentives, and breaking down walls around discrete programs and services

to build a better-integrated program. Additional information on FEMP is available at the following web site: http://www.eren.doe.gov/femp/

Alternative Financing

A key component of FEMP's strategy is to develop and promote "alternative financing" for federal energy projects. "Traditional financing" is a Congressional Appropriation delivered through a phased, multi-year project implementation process covering pre-design, design, and construction. The alternative financing strategy seeks funding from a variety of other sources including utility incentive programs and private financing.

In practice, alternative financing often includes an alternative project implementation process such as that provided by a utility or by an energy services contractor who may integrate financing, design, construction, and operations into a single project. FEMP has developed a strong alternative financing program that is described in the FEMP web site. Other mature programs exist such as that of the U.S. Army Corps of Engineers at Huntsville. FEMP strongly encourages a federal agency or site to investigate all its options before beginning a project.

FEMP/State Partnerships

Another key component of FEMP's strategy is to form partnerships with State organizations to identify areas of common interest and leverage resources to achieve far more energy savings at State and federal facilities than the small amount of grant funding would purchase alone. States can play a strategic role in helping federal agencies achieve major energy reductions in the near future. Many States have excellent expertise and networks developed from their efforts to reduce energy consumption of State and local governments and much of that expertise is applicable to federal facilities. Some partnerships of State and federal staff already exist and more can be developed.

Resource Efficiency Manager Development

FEMP is responsible for advancing energy efficiency, water conservation, and renewable energy utilization in Federal facilities nation-wide. As a new area of emphasis for 1999, FEMP is requesting States to develop a project in cooperation with a utility to fund individual(s) at Federal sites to perform the duties of a Resource Efficiency Manager (REM). The REM savings are accomplished through reduced cost and consumption of electricity, water, fossil fuels and solid waste. After 12-18 months it is expected that the host facility will be responsible for financing this position through savings. REM's focus on low-cost, no-cost facility/operation modifications. This position is not meant to displace current Energy Managers, but to enable a teaming effort.

Proposals Requested in FY 1998

FEMP requests proposals from States for one large partnership program and several smaller programs, and a resource development program, as discussed below. FEMP's SEP Special Projects grants program focuses on the following goals:

- Transfer of FEMP's alternative financing models to individual States; and
- Provide technical support to federal sites through State Energy Offices;
- Train State Energy Office personnel in alternative financing techniques in preparation for participation in future cycles of the SEP Special Projects solicitation; and
- Provide support for the development of resource efficiency managers.

All proposals shall include explicit plans for coordination with FEMP representatives at DOE Regional Support Offices. Proposals for Category A and B (discussed below) should include explicit plans to make the results of their grants visible to other States, to the federal agencies that may wish to partner with States in the future, and to FEMP headquarters for performance accountability and promotional purposes.

Proposals should be for one of the following grant categories:

Grant Category A: Alternative Financing Pilot Program.

FEMP will provide approximately $225,000 for one pilot program in one State to establish a Statewide alternative financing program equivalent to FEMP's Super-ESPC and utility-based financing programs.

The State can target State facilities but shall target at least one alternative financing project that delivers energy savings to a federal facility. FEMP strongly encourages States to target larger or multiple federal facilities. FEMP's proposal selection criteria favor targets with larger annual cost saving potential.

Based on past proposal submissions, the likely facilities are those jointly owned or funded by the State and the federal government such as National Guard facilities or State and Veterans hospitals that use shared heating or cooling plants. FEMP strongly encourages States to consider targeting other federal facilities, especially where States can provide or channel financing at lower cost than other 3rd party sources.

During the development of a Statewide pilot program, the State should plan to work with FEMP, DOE National Laboratories, FEMP Regional Support Offices, and federal sites to learn the requirements and processes necessary to implement alternative financing projects that are appropriate for the federal site.

The program should explore the development of a system to recover the costs of Statewide alternative financing mechanism development, technical assistance, and contract maintenance through payments made by participating entities out of realized cost savings. Recovered funds should be used to pursue additional alternative financing projects.

The State selected for this grant shall provide proof that their centralized State contract/procurement function currently has the authority to use the proposed alternative financing process - in particular, energy savings performance contracts. If the authority does not currently exist, the State shall provide a letter from the appropriate legislative committee chairperson that such authority will be considered in the next legislative session.

FEMP encourages States to propose innovative methods of accomplishing the purposes set forth above in consideration of the unique legal and institutional constraints of the State and targeted federal sites. FEMP will provide technical information and support (e.g. FEMP's ESPC contract language, energy savings verification procedures, utility agreements, etc.) to the pilot program. If successful, this pilot program should serve as a model for other States to adapt to their unique circumstances. States should review the existing FEMP alternative financing program contracts and supporting documents available through the clearinghouse at 1-800-DOE-EREC or http://www.eren.doe.gov/femp /financing.html.

After a grant is awarded, FEMP strongly encourages the State to consult with FEMP headquarters and regional staff in the implementation of the grant. The appropriate contacts will be provided after the award.

Grant Category B: Financial Assistance for State-Federal Projects.

FEMP will provide six grants of approximately $75,000 each for States to directly support federal sites participating in regional FEMP Super-ESPCs, utility programs, or other alternative financing as available. FEMP anticipates that States applying in this category will provide technical assistance, training, audit and other services appropriate to federal site needs. These projects are limited to servicing federal sites. However, transfer of lessons learned to State, local and other entities is encouraged.

Grant Category C: Training Grants for State Energy Office Personnel.

FEMP recognizes that some States may not yet have developed expertise or networks in alternative financing but, nonetheless, have a significant number of federal facilities or other opportunities that need to be addressed. Accordingly, FEMP will provide 3 grants of approximately $25,000 each for States to develop alternative financing expertise appropriate for addressing the needs of federal sites.

FEMP intends these grants to use FEMP's extensive training resources to train State personnel. These resources include a large number of FEMP Federal Partner Resource Centers placed with utilities. For more information on FEMP training resources, see the web sites noted below. FEMP will consider supplemental training from other sources as appropriate.

Grant Category D: Resource Efficiency Manager Development

The REM's will be placed at large Federal installations or groupings of Federal installations (resource expenditures exceeding $3,000,000) and will work along side other civil service facility/energy staff.

The State and potential Federal facility will recruit a utility to participate in this program. It is highly desirable that the utility cost share, with the expectation of getting reimbursed by the Federal facility at a later date, spanned over a period of time. The Federal facility should also provide some cost share; however, the State can use their discretion on providing funds through this grant.

This project will require commitments from a utility and pre-screened Federal sites. This is an opportunity for utilities to explore the development of a regular service they could offer to their State, local, and private sector clients. The Federal site will be pre-screened and approached by the parties involved in the Resource Efficiency Manager Program. Experience has shown that the Resource Efficiency Manager's efforts will yield enough savings to offset program costs plus more. The goal of the program will be to create an energy champion within the organization who is dedicated exclusively to reducing all resource use thereby creating a revenue stream enabling the REM position to become self-funded. It is recognized that the amount of time necessary to become self-funding depends on factors such as:

1) start of program in relation to seasonal utility use peaks
2) type and energy intensity of facility
3) commitment from facility's upper management
4) working relation with current energy staff at Federal facility
5) expediency on adapting updated or new resource policies
6) effectiveness of the training provided to Building Energy Monitors by the Resource Manager.

The Resource Efficiency Managers for this project are to focus efforts in four major areas:

Resource accounting and sub-metering **-** This entails implementing an advanced software program to better account for all site resources. In addition, sub-metering projects are initiated to make on-site groups more accountable to their resource use. The capabilities of resource accounting systems are superior to use of spreadsheets for tracking resources. Many times billing errors and more desirable rate schedules are uncovered.

Energy Policies and Incentive Programs **-** Surveys have shown that may sites have outdated policies. The site REM along with top site management will implement energy policies and possibly incentive programs for occupants.

Building Energy Monitor programs (BEM's) **-** The REM recruits and trains site BEM's. These individuals are really the eyes and ears responsible for their own number of buildings. One Army Resource Manager, for example, directs 125 of these individuals. This represents a tremendous amount of leveraging to yield low-cost, no-cost savings through better building management.

Installation or facility-wide training and promotion **-** The REM works with internal groups such as the mechanical and electrical shops and various housing groups. These efforts bring additional awareness to many. The REM commonly develops press releases and articles for site newspapers.

After the position is securely established, additional energy related duties can occur such as energy project development. Such projects may be financed through appropriations or through alternative methods, such as utility financing or performance contracts.

There are only several utilities nation-wide that operate programs that hire, train and finance Resource Managers in their customers' facilities. A number of utilities have also expressed interest in such a program. FEMP recognizes this as a very innovative and potentially effective program to reduce resource consumption and encourages more of these programs. Utilities often require the host facility to pay for a fraction of the position and then bill for the additional costs through the monthly utility bill. Payment terms can be fairly flexible depending on the utility goals of the program. All REMs will be located at Federal facilities. It is important that the awardees work in partnership with existing RSO FEMP representatives.

Applicants are encouraged to develop a plan to make their REM program self sustaining. Such a plan may take several forms, including, but not limited to: transfer to utilities or other private sector entities; or, cost recovery from facilities with REMs.

Responsibilities of the States selected to receive a FEMP Special Project Award for initiating a Resource Efficiency Manager Program:

- Have agreements in place with prospective Federal facilities and utilities willing to pilot the Resource Efficiency Manager program.
- Lead all the contractual arrangements. Hire or contract out to appoint qualified Resource Efficiency Manager(s)
- Train and make arrangement for on-going support for the Resource Efficiency Manager(s)
- Arrange for on-site Federal office space, computer/software, automobile for the Resource Efficiency Manager(s)
- Responsible for quarterly progress reporting and savings estimates

Proposal Selection Criteria

The FY 99 proposal selection criteria are similar to the FY 98 criteria with some significant changes. In FY 99, the criteria have been revised for the large grant (Category A) and to reflect current FEMP goals; those criteria are noted below. FEMP will use the same criteria to evaluate proposals for the smaller grants (Category B). For the training proposals (Category C), and the resource efficiency manager proposals (Category D), FEMP will use separate sets of criteria as noted below.

FEMP strongly encourages states to format proposals for Grant categories A and B according to the criteria outline.

<u>Criteria for Grant Category A (Alternative Financing Pilot Program)</u>

The criteria for Grant Category A (Alternative Financing Pilot Program) focus on the following factors:

- States with substantial experience in technical assistance and alternative financing for building energy efficiency improvement projects.
- States with good existing relationships with energy savings contractors (ESCOs), utility finance program managers, and facility-related managers of federal sites.
- States with documented authority to undertake energy savings performance contracting, or documented legislative support for acquiring such authority.
- Federal targets are large and/or have significant energy savings potential.
- States with past successful performance with the State Energy Program Special Projects grants. The consideration is on the timely performance, quality of results, and visibility of results of such past grants.

The "pass/fail" criteria for mandatory requirements in Category A proposals are as follows:

- State proposes to achieve energy and cost savings for at least one federal site.
- State's centralized State contract/procurement function has authority to do ESPCs or letter from Legislature that it will be considered.
- State proposes to create or expand a centralized State contract/procurement function.
- State proposes to investigate methods for State/federal agencies to reimburse state for alternative financing services.

The graded criteria work within a maximum possible total score of 100 points across all criteria. The four major criteria and weights or points are as follows:

1. Experience of State's key staff 30 points
2. Other Project Team Partners 30 points
3. Site or Project specific considerations 30 points
4. Additional considerations 10 points

Under the major criteria are secondary criteria that subdivide the points as noted below. The FEMP reviewer's spreadsheet of criteria and scoring benchmarks is available at the web sites listed at the bottom and FEMP encourages states to obtain a copy. The criteria are as follows:

1 Experience of State's key staff named in proposal. Subtotal Points: 30

1.1 Number of Alternative Financing projects already implemented by key staff. Points: 4

1.2 Dollar-amount of Alternative Financing projects in development or

implementation by key staff. Points: 5

1.3 Proposed number of state, local & federal staff to be newly trained in Super ESPC Delivery Orders. Points: 3

1.4 Other experience of the Team Leader in energy retrofits, major projects, or financing. Points: 5

1.5 Key staff involvement in government/professional associations related to energy, O&M, and procurement (e.g. NASEO, AEE, or other). Points: 3

1.6 Key staff experience with targeted federal agency, site, or facility. Points: 5

1.7 Key staff success with previous SEP Special Projects funding. Points: 5

2 Other Project Team Partners. Subtotal Points: 30

2.1 Number of Alternative Financing and technical partners: Super-ESPC ESCOs, other ESCOs, and Utilities. Points: 5

2.2 Funding/FTEs the partners will each contribute under this proposal for promoting or developing alternative financing projects, and/or delivery orders under Super-ESPCs. Points: 3

2.3 Capital/Investment funding to be contributed by the local utility or government financing programs. Points: 3

2.4 Funding/FTEs to be contributed by the state. Points: 3

2.5 Acceptance of Alternative Financing by the management of targeted facilities. Subtotal Points: 16

2.5.1 Senior facilities manager's acceptance. Points: 3

2.5.2 Senior finance manager's acceptance. Points: 3

2.5.3 Senior O&M manager's acceptance. Points: 3

2.6 Coordination with FEMP RSO. Points: 7

3 Site or Project specific considerations. Subtotal Points: 30

3.1 Baselining, screening, and/or assessments. Subtotal Points: 6

3.1.2 Facility types quantified & characterized such as by square feet of building type/use (offices, warehouses, residential, etc.). Points: 3

3.1.3 Energy use and cost tabulated. Points: 3

3.2 Magnitude of annual energy savings. Subtotal Points: 24

3.2.1 Annual energy savings in terms of % of total energy consumption of the federal target(s). Points: 8

3.2.2 Annual energy savings from O&M improvements in terms of % of total energy consumption of the federal target(s). Points: 1

3.2.3 Annual cost savings from federal projects. Points: 12

3.2.4 Method used to estimate savings at the federal target(s). Points: 3

4 Additional Considerations. Subtotal Points: 10

4.1 Amount of greenhouse gas reduction by fuel switching or energy reductions. Points: 1

4.2 Amount of water saved. Points: 2

4.3 Increase in renewable energy sources/volume. Including Million Solar Roofs Initiative. Points: 7

Criteria for Grant Category B: Financial Assistance for State-Federal Projects:

Grant Category B has only one "pass/fail" criteria for mandatory requirements: State proposes to achieve energy and cost savings for at least one federal site. The graded selection criteria for Category B proposals are the same as for Category A as noted above.

Criteria for Grant Category C: Training Grants for State Energy Office Personnel:

Grant Category C has only two general criteria as follows:

1. Description of state plans to develop alternative financing expertise relevant to federal sites. Such plans should include timeline, personnel commitment, anticipated partners, and other relevant information sufficient to project successful development of an alternative financing program. Maximum score: 75.
2. Description of the federal market within the State, where possible identifying high priority targets for alternatively financed project development. Maximum score: 25.

Criteria for Grant Category D: Resource Efficiency Manager Development:

State Proposals under Category D will be ranked according to the following criteria:

1. Experience operating successful Resource Efficiency Manager programs, particularly at large Federal sites. (30)
2. Utility partner provides a letter of commitment to offer a Resource Efficiency Manager service for their clients. (30)
3. Federal recipient of REM service provides a letter of commitment to consider eventually funding such a position through utility savings budget. (20)
4. Ability to develop a series of training materials for site Building Energy

Monitors and create program-marketing materials for occupants at the Federal site(s) that host Resource Manager programs. (20)

5. Plan for creating a self-sustaining REM program. (10)

Program Partners: Roles, Responsibilities, and Resources

DOE FEMP - Jerry Dion at FEMP headquarters will serve as the liaison with other EE offices and NASEO; Regional Support Office (RSO) Team members noted below will provide technical assistance to grant recipients and track the technical accomplishments of work conducted under the awards.

DOE EE Regional Support Offices - These offices will handle the administration of all grants and oversee issues related to grantee compliance with the terms of the awards. In addition, RSO's will coordinate with the State Energy Offices on FEMP issues through FEMP's regional contacts.

The National Association of State Energy Officials (NASEO) - NASEO will facilitate peer exchange and networking through its FEMP-State Initiative.

DOE National Laboratories - FEMP will provide assistance via selected National Laboratories in support of States' implementation of their grant activities.

FEMP Program Contacts:

Headquarters: Jerry Dion, (202) 586-9470

Regional Support Offices:

Western	Curtis Framel	(206) 553-7841
	Arun Jhaveri	(206) 553-2152
	Cheri Sayer	(206) 553-7838
	Eileen Yoshinaka	(808) 541-2564 (Hawaii)
Central	Randy Jones	(303) 275-4814
Midwest	Sharon Gill	(312) 886-8573
Northeast	Paul King	(617) 565-9712
Mid-Atlantic	Leah Boggs	(215) 656-6976
	Bill Klebous	(212) 264-0691
	Claudia Marchione	(215) 656-6961
Southeast	Doug Culbreth	(919) 782-5657
	Dave Waldrop	(404) 347-3483

This solicitation will be available at the following web site; look for links to the State Energy Program (SEP) Special Projects:
http://www.eren.doe.gov/buildings/state_and_community/sep/fy99/sepsp99-forum

The National Association of State Energy Officials (NASEO) operates a Task Force on FEMP's SEP program. Information on the Task Force, on past grants, and a public message board are available at the following web site: http://www.naseo.org/femp/default.htm

The FEMP reviewer's scoring spreadsheet of criteria and the benchmarks is available at the SEP and NASEO web sites noted above.

For more information on the State Energy Offices, call the Regional Support Office for your region or see the list on the web site of the National Association of State Energy Officials (NASEO) at: http://www.naseo.org/Members/states/default.htm

For more information on the U.S. Army Corps of Engineers ESPC programs, see the following web site: http://w2.hnd.usace.army.mil/energy/

For more information on FEMP training resources and FEMP Federal Partner Resource Centers, see the following web sites:

Training: http://www.eren.doe.gov/femp/resources/training/femptraining.html

Resource Centers: http://www.eren.doe.gov/femp/financing/rescntr.html

6.5 POWER TECHNOLOGIES

Projects to be undertaken with funding provided by the Office of Power (formerly Utility) Technologies include Remote Applications of Renewable Energy to Reduce or Avoid Diesel and Gasoline Power Generation, as in FY 1998. New categories in FY 1999 include Solar Thermal, Biomass Power, Small Wind Turbine Field Verification, and Geothermal Heat Pumps for Energy $mart Schools. Also included this year are projects supporting the Million Solar Roofs Initiative, administered directly by the Office of the Assistant Secretary for Energy Efficiency and Renewable Energy.

6.51 REMOTE APPLICATIONS OF RENEWABLE ENERGY TO REDUCE OR AVOID DIESEL AND GASOLINE POWER GENERATION

Estimated Funds Available:	At least $1,000,000
Estimated Number of Projects:	10 or more
Cost share:	At least 75% of cost must be from non-Federal funds. Higher leveraging encouraged. Federal funds will not exceed 25% of cost.

Background:

In much of the developing world, and portions of the U.S., the costs of electricity transmission and distribution systems are prohibitive. As a result, large amounts of

electricity, heating and cooling is provided by comparatively expensive and polluting diesel or gasoline-fueled equipment. In many cases renewable energy technologies are cost-competitive, but underutilized because of lack of consumer acceptance or reliability. This solicitation focuses on applications of renewable energy for remote energy needs, to demonstrate cost-effective, modular technologies as reliable, easy to operate, and easy to maintain.

Projects Requested in FY 1999:

Grants are available for design, purchase and installation of renewable energy technologies including solar hot water (SHW), photovoltaic (PV), wind, biomass technologies, geothermal heat pumps, fuel cells and direct use of geothermal resources in remote areas where they would displace or avoid the use of diesel fuel or gasoline. Examples of remote applications could include island mini-grid systems that supplement or displace existing or planned diesel/gasoline generation, or end-of- line systems or off-grid applications that could not be cost-effectively served by line extensions. All projects must include a cost-benefit analysis showing verifiable, favorable, monetary cost/benefit ratios over an analysis period of 25 years or less. They must also include an estimate of avoided or displaced fossil fuel generation, and an estimate of the number of similar applications that might be possible. Projects that demonstrate new applications that have a significant future market potential are desired. Examples could include products that have innovative hybrid designs combining renewable energy technologies such as a PV-wind hybrid, or PV and SHW systems that combine heat and electricity services, or projects that demonstrate new applications like telecommunication services for off-grid or remote areas.

Evaluation Criteria:

State proposals will be ranked according to the following criteria:

1) Value in demonstrating viable uses of renewable energy including new products or applications, and/or hybrid systems incorporating more than one renewable technology that can be replicated at other sites, including the number and size of potential applications. (30%)

2) Technical quality of plans for system design, operation and maintenance. (20%)

3) Cost sharing above the 75% non-Federal funds requirement. (20%)

4) State involvement in planning and implementing the projects, and follow-up plans for disseminating results and lessons learned within the State, and/or nationally. (10%)

5) Demonstration of new applications to advance consumer acceptance and/or reliability; for example, new types of services for an area. (10%)

6) The output of the Federal Energy Management Program BLCC program to show the value of displaced diesel or other fossil fuel generation and cost-benefits analysis (10%)

Program Contacts:

Headquarters:	Dan Ton 202-586-4618
Technical Assistance:	Mike Thomas 505-844-1548
	Steven Durand 407-638-1466
	Gerry Nix 303-384-6925 (for Wind systems)

Regional Support Offices:

Atlanta:	Steve Hortin	(404) 347-0239
Boston:	Richard Michaud	(617) 565-9713
Chicago:	William Hui	(312) 886-8586
Denver:	Cathy Ghandehari	(303) 275-4805
Philadelphia:	Patricia Passarella	(215) 656-6966
Seattle:	Jeff James	(206) 553-2079

BLCC software is available for downloading on the Internet:

http://www.eren.doe.gov/femp/techassist/softwaretools/softwaretools.html#blcc

6.52 SOLAR THERMAL PROJECTS

Estimated Funds Available:	$50,000
Estimated Number of Projects:	1 - 2 at $25,000 to $50,000 in Federal funds per project
Cost Share:	At least 25% of cost must be from non-Federal funds; additional non-Federal cost sharing will improve competitiveness Federal funds will not exceed 75% of cost.

Background

One of the goals of DOE's Concentrating Solar Power (CSP) Program is to assist States in assessing how CSP technologies (dish/engine systems, parabolic troughs and power towers) can be used to meet their electric load requirements. Several of these technologies have been demonstrated, but additional field validation at actual user sites, under a variety of ownership configurations, would be instrumental in helping these technologies overcome initial market reluctance. One of the main obstacles to utilizing CSP systems, like other renewable technologies, is that the initial hardware

cost is almost always higher than the comparable fossil-fuel alternative. Some CSP technologies can be utilized in smaller blocks of capacity which are well suited to smaller electric power providers like municipal electric authorities (munis), rural electric cooperatives (coops), and other public power generators. These organizations in the southwestern U.S. could comprise the initial domestic markets for CSP technologies. Smaller systems can also serve in various distributed generation configurations, from clusters of units at a substation to micro-sized, homeowner units installed on the customer side of the meter.

A very fundamental advantage these electric organizations have in adopting relatively capital-intensive technologies is that they generally borrow money at lower rates than commercial entities such as investor-owned utilities. The current spread is about 1.0 to 1.5 percent; and the spread in recent years has been between 2 and 3 percent. Public power entities are also exempt from property tax, which further adds to the attractiveness in borrowing for capital projects. In addition, several States have either renewable portfolio standards (RPS), system benefit charges, or green pricing programs which provide funding or other inducements to use renewable technologies. These capital financing and other economic advantages can be utilized for grid-connected, distributed generation assets as well as for customer-sited, distributed assets.

Projects Requested in 1999

The specific ways that the CSP Program proposes to work through the SEP are grouped into two sub-proposals (A&B). The two vary significantly in the capacity of the solar units they are developing, and in their points on the continuum from applied research to commercial readiness. Accordingly, each sub-proposal has its own intended participants and evaluation criteria.

A. Grid-connected, distributed generation.

Identify potential partnering organizations (e.g., munis, coops) in the southwestern U.S. that would be interested in cost-sharing the field validation and operation of a distributed CSP system in the 10 to 25kW range. These organizations should have experience with operating generation assets. Since one of the advantages that munis, coops, or other public power entities bring to this arrangement is their ability to finance the project at lower or preferred rates (to lower the levelized cost of energy from the project), clearly electric companies with preferred credit ratings and lower borrowing rates are preferred partners.

Evaluation Criteria

1. Credit-worthiness of public-power entity and historical borrowing rates for

investments in generating assets. (20 points)

2. Diversity of size, load conditions, and technical experience with operating and scheduling generation assets. (20 points)

3. Replicability of project to other public-power entities in the southwestern U.S. and, ultimately, to international projects and markets. (30 points)

4. Amount of cost-share. (30 points)

B. Residential-scale distributed generation.

Identify research partners (including universities) to investigate the benefits and design of a "residential"-sized CSP system, in the 0.5 to 3.0kW range. The broader programmatic objective, of facilitating the longer-term adoption of the technologies, would be best served by having a technology champion team with the research or university partner in order to ensure a sustainable industry. These projects could be funded by a green pricing program, or some other mechanism designed to satisfy either the market- or RPS-need for environmentally-friendly power generation.

Evaluation Criteria

1. Direct, related experience in managing a research effort which designed and engineered a comparable technology development program. (30 points)

2. Vertical integration and other corporate arrangements needed to ultimately bring a commercial product to market from the applied research and design stage. (30 points)

3. Replicability of project and technology products to allow for maximum flexibility in design (e.g., modular components and systems), manufacturing, and installation. (25 points)

4. Amount of cost-share. (15 points)

Program Contacts:

Headquarters: Glenn Strahs: (202) 586-2305

Regional Support Offices:

Atlanta:	Steve Hortin	(404) 347-0239
Boston:	Richard Michaud	(615) 565-9713
Chicago:	William Hui	(312) 886-8586
Denver:	Cathy Ghandehari	(303) 275-4805
Philadelphia:	Susan Guard	(215) 656-6965
Seattle:	Jeff James	(206) 553-2079

6.53 BIOMASS POWER PROGRAM

Estimated Funds Available:	$200,000
Estimated Number of Projects:	7 ($25,000-$35,000 in Federal funds per project)
Cost Share:	At least 50% of cost must be from non-Federal funds; Federal funds will not exceed 50% of cost.

Background

The Office of Utility Technologies/Biomass Power Program is seeking State and local partners to identify low-cost project opportunities for the introduction and utilization of biomass power technologies and biomass energy feedstocks. Significant niche market opportunities exist within many regions of the United States whereby agricultural and utility interests can be merged to generate renewable biomass electricity. Current analysis indicates that integrated biopower projects will provide significant benefits to the environment and to local economies. This project will cost-share (within available funds) feasibility studies and/or project development opportunities that combine energy crop production and electricity generation in niche markets.

Examples of applications could include, but are not limited to:

- Utilization of marginal land (e.g., reclaimed surface mine land, underutilized agricultural land) for energy crop production for electricity generation.
- Analysis and/or deployment of “On-Farm” power generation systems.
- Cofiring locally produced, dedicated biomass with coal in existing coal-fired facilities.

Evaluation Criteria

State proposals will be ranked based on the following criteria:

1. Diversity of Partnerships -- at a minimum, power generators, feedstock producers (farmers/landowners), and State governments must be project participants. (40 points)
2. Economic and Environmental Benefits -- projects should address the local impacts resulting from integrated biopower deployments. (30 points)
3. Opportunity for Replication -- of particular interest are projects that can be readily replicated/duplicated either within the State or in other parts of the country. (30 points)

Program Contacts:

Headquarters: Sam Tagore (202) 586-9210

Regional Support Offices:

Atlanta:	Dave Waldrop	(404) 347-3483
Boston:	Richard Michaud	(617) 565-9713
Chicago:	William Hui	(312) 886-8586
Denver:	Cathy Ghandehari	(303) 275-4805
Philadelphia:	Patricia Passarella	(215) 656-6966
Seattle:	Jeff James	(206) 553-2079

6.54 SMALL WIND TURBINE FIELD VERIFICATION

Estimated Funds Available:	$200,000
Estimated Number of Projects:	2-10
Cost Share:	At least 65% of cost must be from non-Federal funds; higher cost sharing encouraged; Federal funds will not exceed 35% of cost.

Background:

In remote areas of the United States and its territories, residents of small communities are often faced with comparatively high costs for electricity. In some cases this is because the communities are totally dependent on expensive, and difficult to operate and maintain, diesel power plants to meet their electricity needs. One possible option is the use of wind energy using small wind turbines. Such small wind turbines can include models with rated outputs from 300 watts up to models with a rated output of as much as 100 kilowatts (kW). These small wind systems can feed their energy output into a distribution system that is part of a large electric grid, be linked with an existing diesel system in a wind-diesel hybrid system, or possibly be tied with other renewable energy technologies, for example in a wind-photovoltaic system. Limited numbers of these types of small wind energy systems are currently in operation, or under development in certain parts of the United States, most notably in Alaska. To date experience with such systems has shown that they have much potential in various distributed generation applications, and may possibly be able to produce electricity at costs to customers below that of extending power lines from a central grid, or from stand-alone diesel power generation systems. In light of that experience and the growing availability of US-manufactured wind turbines with rated outputs from 300 watts to 100 kW, the Department seeks to engage in collaborative efforts with the States and the territories in the siting of such small wind energy systems in order to better understand the potential for these systems in domestic and, possibly, international applications.

Projects Requested in 1999

Grants are available for the design, purchase, and installation of small wind energy systems, using US-manufactured turbines with a rated turbine output of 300 watts to 100 kW. The projects must also specify the operations and maintenance regimes that the project will use during the first five years the project is on line. At the sites where they are installed, the projects would seek to verify the viability of small wind turbines to produce electricity to augment or replace electricity currently available from central grid systems or diesel generation systems. The maximum Federal share will be no more than 35% of the total project cost. All projects must include a cost-benefit analysis showing verifiable, favorable, monetary cost/benefit ratios over an analysis period of 25 years or less. They must also include an estimate of avoided or displaced fossil fuel generation, and an estimate of the number of similar applications that might be possible.

Evaluation Criteria

State proposals will be ranked according to the following criteria:

- Value in verifying a viable application that can be replicated at other sites, including the number and size of potential applications (30 points)
- Technical quality of plans for system design, operation and maintenance (25 points)
- Cost sharing above 65% (15 points)
- State involvement in planning and implementing the projects, and follow-up plans for disseminating results and lessons learned within the State, and/or nationally (15 points)
- Value of displaced diesel or other fossil fuel generation, and other monetary benefits (15 points)

Program Contacts:

Headquarters: Thomas Hall (202) 586-8302

Regional Support Offices:

Atlanta:	Steve Hortin	(404) 347-0239
Boston:	Richard Michaud	(617) 565-9713
Chicago:	William Hui	(312) 886-8586
Denver:	Cathy Ghandehari	(303) 275-4805
Philadelphia:	Patricia Passarella	(215) 656-6966
Seattle:	Jeff James	(206) 553-2079

6.55 MILLION SOLAR ROOFS INITIATIVE STATE & COMMUNITY PARTNERSHIPS

Estimated Funds Available:	$100,000
Estimated Number of Projects:	2-6 not to exceed $50,000 in Federal funds per project
Cost Share:	At least 50% of cost must be from non-Federal funds; Federal funds will not exceed 50% of cost.

Background:

The Department of Energy's (DOE's) Million Solar Roofs Initiative (MSR) is an initiative to install solar energy systems on one million U.S. buildings by 2010. It was announced by President Clinton on June 26, 1997 in his speech before the United Nations Session on Environment and Development. This effort includes two types of solar energy technology – photovoltaics that produce electricity from sunlight and solar thermal panels that produce heat for domestic hot water, for space heating or for heating swimming pools.

This solicitation is open to MSR State and Community Partnerships which bring together business, government and community organizations at the regional level with a commitment to install a pre-determined number of solar energy systems. There were, at the beginning of FY99, nine such existing partnerships under the Million Solar Roofs Initiative. They received their MSR Partnership designation by writing a letter of commitment to DOE with their goal for actual installations by 2010. In return, DOE provides training and technical assistance from DOE's existing infrastructure; recognition and support; a link to solar energy businesses, associations and related industries that can provide assistance.

Projects Requested in 1999:

The Office of Energy Efficiency and Renewable Energy is providing incentive funding to support State and community partnerships under the Million Solar Roofs Initiative. The project or activity must be conducted in a currently designated MSR partnership community. Any member of a State or Community Partnership can apply through their State Energy Office on behalf of the partnership, including builders, energy service providers, utilities, non-governmental organizations, local governments or State governments. The different organizations/offices involved in a State or Community Partnership are encouraged to collaborate on their response to this solicitation. There is a 50% cost-sharing requirement for these grants which can include both cash and in-kind services. Any partnership selected for funding under this RFP will not be eligible for any additional Million Solar Roofs Initiative funding in FY99.

Projects may include but are not limited to Partnership actions that will contribute to the installation of one million solar energy systems on U.S. rooftops by the year 2010. None of the Federal funds can be used for the purchase and/or installation of solar energy systems.

This following list of activities is intended to give communities a sense for the types of activities funded through this grant program. It is not a comprehensive list.

1. Develop a plan for solar energy installations under the Million Solar Roofs Initiative: Communities may use the money to develop a formal implementation plan which outlines the process they will follow to meet their pre-determined goals for solar energy installations in their community. It might include steps that must be taken to remove existing barriers, educate citizens, establish a supporting infrastructure, etc..

2. Study the localized barriers to solar energy applications. Barriers can include restrictive codes and standards, lack of public awareness and education, prohibitive interconnection standards applied by energy service providers, lack of adequate financing options, and more. A community may choose to address one, or any combination of these issues depending on their local situation.

3. Establish net metering for photovoltaics. Net metering improves the economics of PV generation by allowing customers to capture the retail value of electricity for most or all of their PV generation. It is already an option in many States. States and communities where net metering legislation hasn't been adopted might identify this as a critical issue to address in order to improve the economics of PV in their area.

4. Design Charrettes: Charrettes are intensive workshops involving a mix of professionals who work with a community to solve specific design problems. Design charrettes can be one day long or last a week depending on the scope and detail of the problems and issues tackled. Charrettes may be used to help create a framework for implementing solar energy installations in a community or State.

5. Develop and/or modify codes and covenants that affect solar energy installations. Many communities or developments have adopted restrictions that make it difficult or impossible for a homeowner to install solar energy systems on their roof. A partnership may choose to work with community groups, local governments , and/or developers to overcome these unnecessary restrictions.

6. Training for building officials, the construction industry, Realtors, solar energy installers and utility personnel. Providing information and education on solar energy technologies is often the easiest and most effective way to earn the support of related businesses sectors. A partnership may identify one or more groups of professionals as a priority for training and education.

7. Conduct an economic and/or environmental study of the benefits of solar energy technologies on jobs and the environment. A partnership may want to look at the economic and/or environmental benefits of using solar energy technologies in their State or community. This can be critical to work with constituency groups,

customers, legislators, and businesses.

8. Technical Assistance from DOE Laboratories: DOE's National Laboratories can provide training and technical assistance to State and local Million Solar Roofs partnerships. This may help to eliminate critical barriers and provide training to local partners.

Proposals should include:

1. Narrative/work plan of the application (not to exceed 6 pages).

The work plan is one of the most important aspects of your application and (assuming that all other required materials are submitted) will be used as the primary basis for selection. The narrative section of the application shall be a maximum of six 8 ½ by 11 inch pages, with normal type size (12 CPI), and at least 1" margins. Narratives over six pages will not be considered. Work plans should include the following subsections:

a. Summary. Identify the main objectives and activities of the application and the MSR Partnership Community you will be working in.

b. Relative Background and Experience. State the nature of your organization (i.e., how long it has been in existence, if it is incorporated, etc.), what qualification your organization has to ensure success, and the involvement your organization has with current and past energy efficiency and renewable energy activities.

c. Project Description. State the purpose of the project, who you will be working with, the project time line, and expected results including:

(1) Relevance to the Million Solar Roofs Initiative Objectives. Provide an explanation of how the proposed project and/or activities support the objectives of the Million Solar Roofs Initiative associated with implementation efforts in your community or State. Evaluation of this section will be based on the relevance of the proposed project: 1) to meet the community's stated MSR goal; and 2) to meet the overall objectives and development of MSR nationwide.

(*2) Evidence of Million Solar Roofs Leadership and Commitment and Public Participation.* Describe how the applicant is community-based and/or plans to involve the community in the project. Evaluation of this section will be based on the: 1)evidence of strong leadership, public involvement and community commitment; and 2) extent of integration with other DOE and other Federal agency community activities.

(*3).Ability for other State and Community Partnerships to Learn from and Replicate Actions* Describe how the proposed project and/or activities will help make this a model for future State and Community partnerships to follow. Evaluation of this section will be based on the: 1) replicability of

actions in other communities, and 2) extent to which future partnerships can learn from and model their actions after the community.

d. Conclusion. Discuss how the applicant will evaluate and measure success, including the anticipated benefits and challenges in implementing the project. Evaluation of this section will be based on: 1) the quality of the plan for measuring and evaluating success of the project; and 2) the connection between the project's and broader community's objectives.

e. Appendix. Provide resumes of up to 3 key personnel involved with project (not counted in 6 page limit).

2. Letter(s) of commitment (not counted as part of 6 page limit)

Since the Million Solar Roofs Initiative is seeking State and community partnerships, your application must include letters of commitment from the other partners in your local partnership.

3. A Budget Plan (not counted as part of 6 page limit)

Budget figures should support your work plan narrative. DOE funding for projects under this solicitation will not exceed $50,000. Applicants are encouraged to detail other cash and in-kind support for implementation of the Million Solar Roofs partnership activities.

Criteria:

Proposals will be evaluated and ranked according to the following criteria:

APPROACH (50 points): How viable is the overall approach for achieving the desired outcomes? Does the approach demonstrate experience and understanding of the actions necessary to establish an effective Million Solar Roofs partnership? What understanding is demonstrated of the expected benefits of the activities to accomplish the long-term goals of the Million Solar Roofs Initiative? Does the approach build on established networks of organizations at the State and local level?

QUALIFICATIONS (25 points): Ability of the project team to complete work successfully, including qualifications of key agency or agencies and personnel.

IMPLEMENTATION (15 points): Are the specific tasks achievable? Are there measurable outcomes with a realistic schedule for implementation?

PROGRAM COST SHARE (10 points): Greater than a 50 percent cost share.

POTENTIAL IMPACT (10 points): Anticipated benefits from these activities. Estimates of solar energy installations directly resulting from this award and the potential for meeting the goals of the partnership. Identification of significant other benefits. Commitments from prospective partners.

Program Contacts:

Headquarter: Peter Dreyfuss (202) 586-8779

Regional Support Offices:

Atlanta:	Steve Hortin:	(404) 347-0239
Boston:	Richard Michaud:	(617) 565-9713
Chicago:	Mark Burger:	(312) 886-8583
	Juli Pollitt:	(312) 886-8571
Denver:	Steve Sargent	(303) 275-4820
Philadelphia:	Susan Guard	(215) 656-6965
Seattle:	Curtis Framel	(206) 553-7841
	Michael Lottier	(206) 553-2156

6.56 GEOTHERMAL HEAT PUMPS FOR ENERGY $MART SCHOOLS

Estimated Funds Available	At least $200,000
Estimated Number of Projects	3-6 ($25,000 to $50,000 in Federal funds per project)
Cost Share	At least 40% of the cost must be from non-Federal funds; Federal funds will not exceed 60% of cost.

Background

In 1995 the Department of Energy, Environmental Protection Agency, and hundreds of utilities launched a program to increase the use of geothermal heat pumps (GHPs) in all types of buildings. GHPs typically save 20-30% of the energy consumption, reduce maintenance costs, and have the lowest life-cycle costs. GHPs, often called ground-source heat pumps or GeoExchange, offer the Nation a major option to save energy under the Energy $mart Schools Program. The technology is viable in virtually all school buildings, all States, and all new or retrofit construction projects, while providing superior comfort for the teachers and students.

Over 400 k-12 schools, plus colleges, have installed GHP systems. Although pioneering school applications date to the early 1980s, major growth has occurred in the 1990s. While over 35 States have schools with GHPs, 65% of the GHP schools are located in just five States--Texas, Missouri, Kentucky, New Jersey, and Nebraska as success breeds success. There are many reasons to use GHPs in schools:

- GHPs offer improved comfort because the teachers can adjust their classroom conditions and there is no seasonal switch over (each room is heated or cooled as needed year round).
- The simplicity of the overall GHP system and controls means that the custodial staff can easily handle operation and maintenance.

- Typically each classroom, cafeteria, and gymnasium has its own heat pump(s) and is utilized only as needed during the school day or in the evening for community events.
- Aesthetics are improved as GHP systems allow for greater design freedom since there are no rooftop units, and there are no outside units subject to vandalism.
- Any cost premium for GHPs in new or renovated schools can be justified on the basis of lower energy and maintenance costs over the life of the system.

Projects Requested in 1999

Geothermal heat pump use has surged in some States because one or more utilities, State energy or education official, or enthusiastic school superintendent or facility manager took the time to educate other school administrators and their architects and engineers about the GHP benefits. Grants are available for SEOs, education officials, or geothermal heat pump associations to develop a comprehensive education and outreach program to provide school officials with information and resources needed to apply GHP technology. This can range from providing prospective school officials with leading peer contacts; to on-site visits with school officials that have GHP systems in nearby school systems or States; to working with utility energy service companies to provide shared energy savings contracts, financing, or design assistance; to supporting training workshops, design seminars and continuing education courses for engineers, architects, and schools officials. It is recommended that the projects utilize existing school videos, brochures, and design assistance from the Geothermal Heat Pump Consortium, International Ground Source Heat Pump Association, DOE, or EPA.

Evaluation Criteria

The proposal should not exceed five pages in length, excluding the required forms, and will be evaluated based on the following criteria:

1. APPROACH: Strength of the approach for encouraging new school systems to install their first GHP systems and demonstrated ability to build on established networks or organizations. (30 points)

2. STAFF: Communications and management skills of the key staff and track record in energy efficiency, school, or related projects. (30 points)

3. POTENTIAL IMPACT: Provide an estimate of the number of school systems that will select GHPs for the first time and the potential number of GHPs to be installed in four years. (20 points)

4. COST SHARE: Cash or in kind contribution to the project above the minimum requirement of 40%. (20 points)

Period of Performance: One year

Program Contacts:

DOE Headquarters: Lew Pratsch (202) 586-1512

Environmental Protection Agency: Steve Offutt, (202) 564-9791

Geothermal Heat Pump Consortium: Conn Abnee 1-888-ALL-4-GEO

International Ground Source Heat Pump Association: Dr. Jim Bose 1-800-626-4747

DOE Regional Support Offices:

Atlanta:	Traci Goins	(404) 347-0236
Boston:	Richard Michaud	(617) 565-9713
Chicago:	Allie C. Mansker	(312) 886-8584
Denver:	Cathy Ghandehari	(303) 275-4805
Philadelphia:	James Ferguson	(215) 656-6977
Seattle:	Jeff James	(206) 553-2079

Gail McKinley, Director
Office of State and Community Programs
Energy Efficiency and Renewable Energy